

# Institutionalizing ORM and a Mishap Reduction Mindset into the Culture of Naval Aviation CNAF/CNAP Commander's Training Symposium October 5-7, 2004

**RADM Dick Brooks, USN**

**Commander, Naval Safety Center**





# Magnitude of Accidents

***In FY04, Navy and Marine Corps Mishaps Resulted In:***

## NAVY

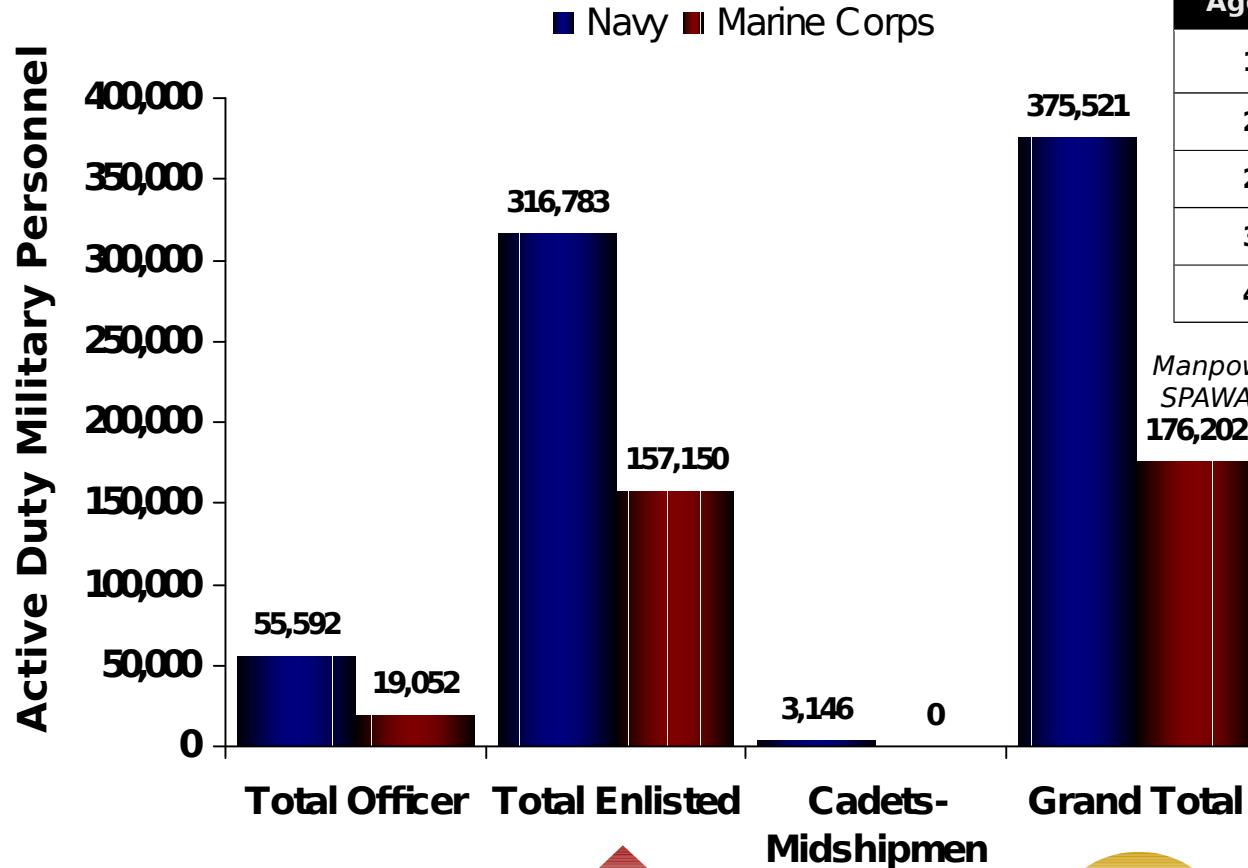
- **1 Navy death every 80 hours**
- **1 POV death every 124 hours**
- **1 Aviation death every 73 days**
- **1 Active duty military injury every 6 hours**
- **1.8 Military members hospitalized every day**
- **11.33 Civilian man-years lost**
- **1 Aircraft destroyed every 52 days**
- **\$1.21 Million a day in aviation losses**

## MARINE CORPS

- **1 Marine death every 88 hours**
- **1 POV death every 191 hours**
- **1 Aviation death every 26 days**
- **1 Active duty military injury every 25 hours**
- **1.9 Military members hospitalized every day**
- **2.53 Civilian man-years lost**
- **1 Aircraft destroyed every 23 days**
- **\$1.74 Million a day in aviation losses**



# USN/USMC Active Duty Personnel



Age Group	USN	USMC
18-21	17.66 %	38.7 %
22-27	34.20 %	34.5 %
28-35	25.03 %	16.5 %
36-45	19.94 %	8.9 %
46-55	3.17 %	1.1 %

*Manpower and Reserve Affairs, 24 September 2004  
SPAWARITC (Reports Division), 24 September 2004*

Av. Age  
28-30

Av. Age  
21-23

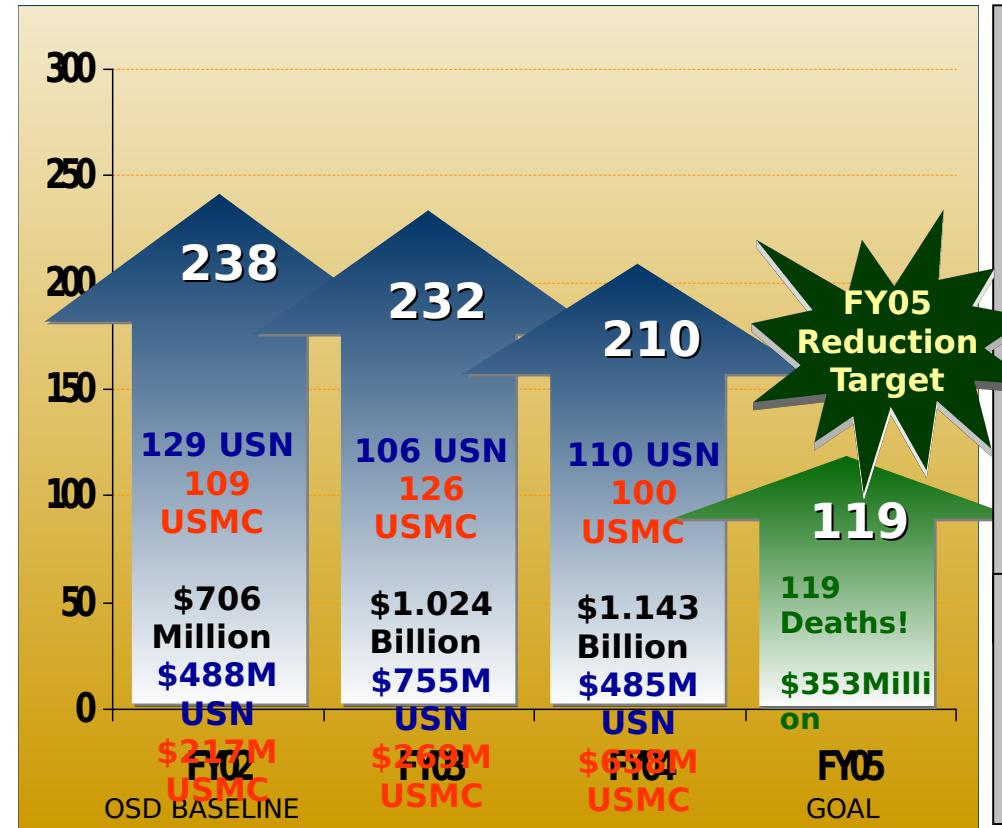
Av. Age  
20-22

Directorate for Information Operations and Reports/30 June 2004



# Where We Are

## USN/USMC FATALITIES & RESOURCES LOST FY02-04



We experienced 210 deaths in FY04

(110 USN & 100 USMC)

Our FY05 50% mishap reduction

Naval Aviation mishap costs have exceeded \$1Billion!

***OUR ENDSTATE GOAL IS ZERO!***

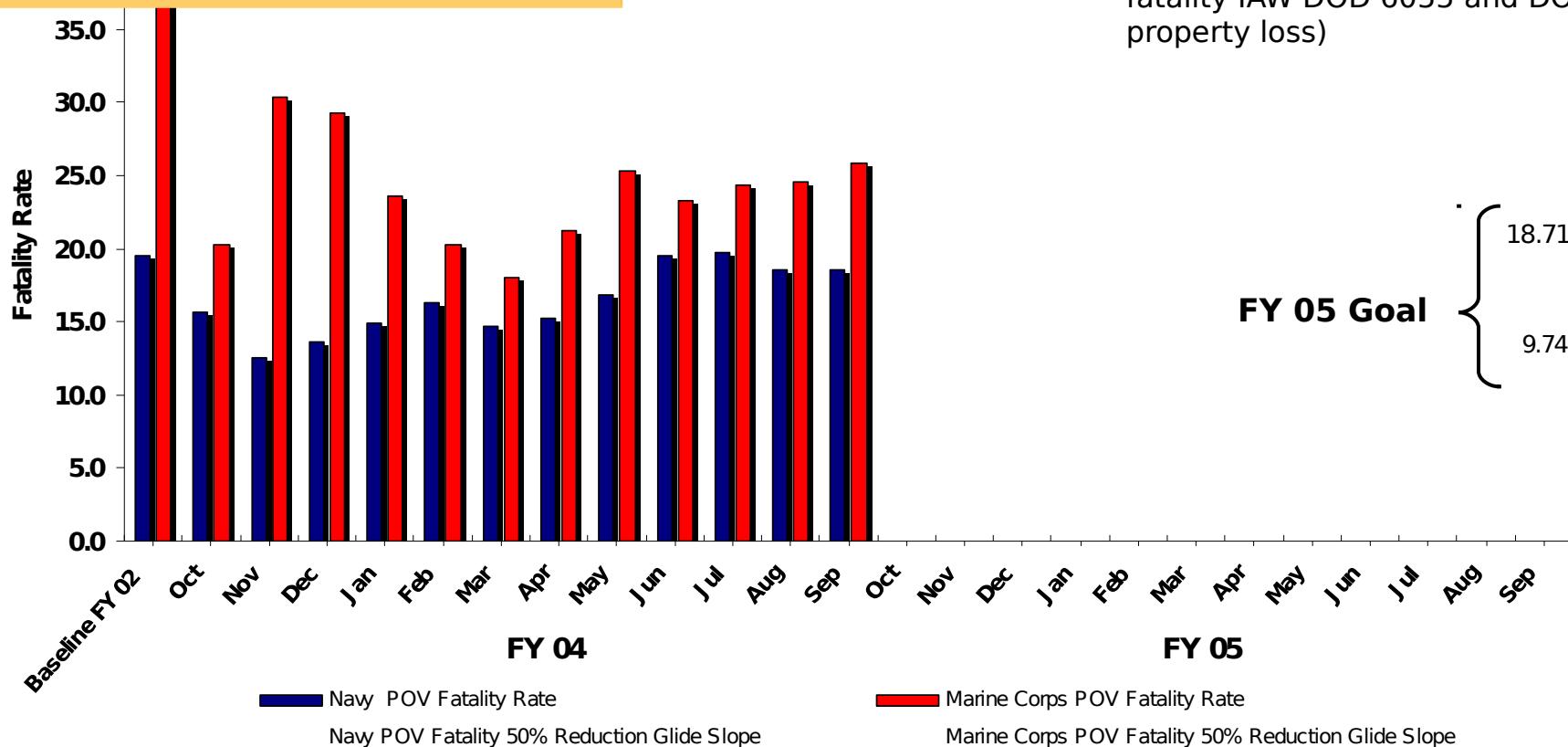


# Status Check (PMV Fatalities)

1 year remains...

## Top Causal Factors

WHEN	WHY
Nighttime Driving	No Seat Belt
Use	Excessive
Weekends	Alcohol
Speed	Fatigue

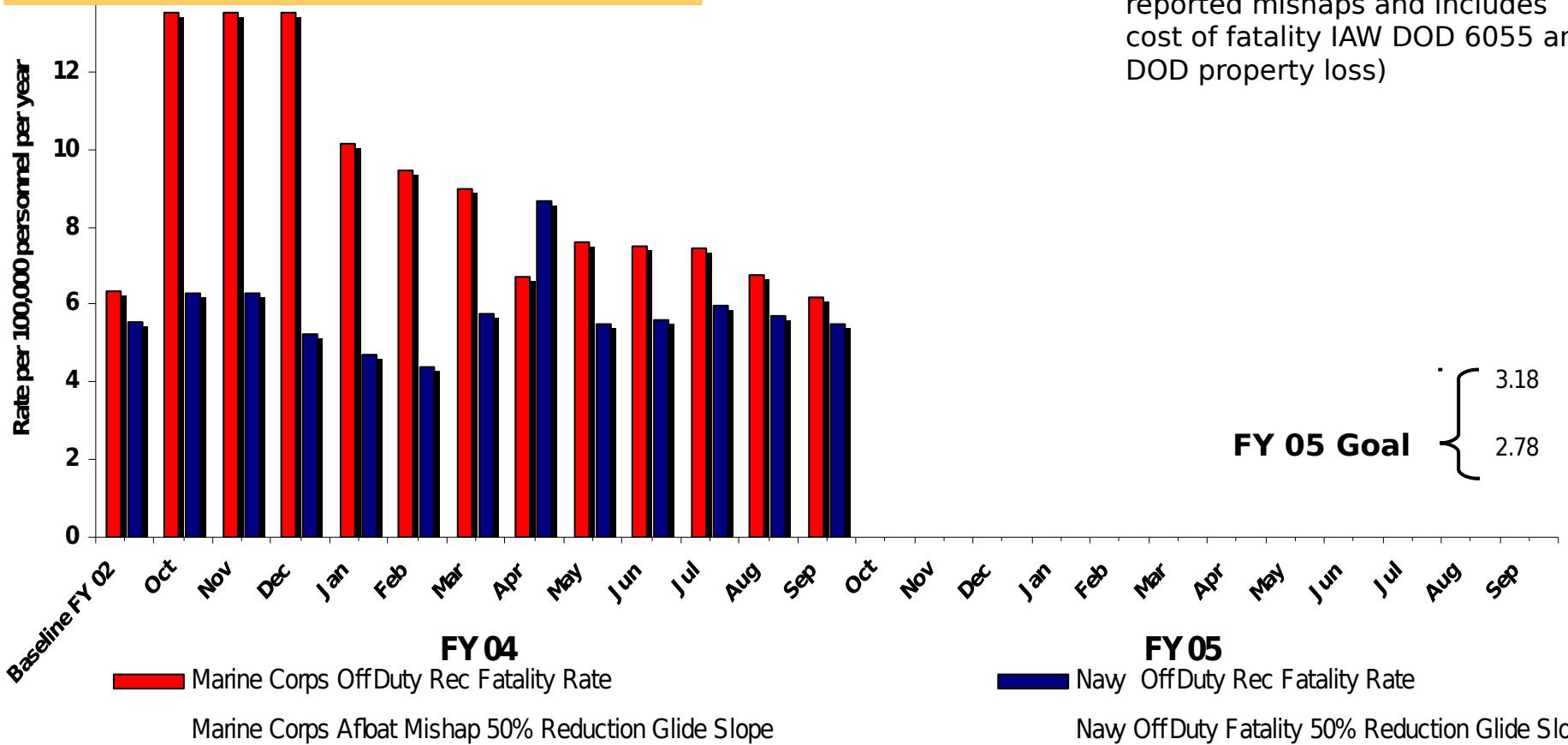




# Status Check (Recreation/Off-Duty Fatalities)

**Leading Causes of Deaths & Injuries**  
1 year remains...

- Drowning
- Falls
- Outdoor Recreation
- Team and Outdoor Sports
- Water Sports (jet skis, motorboat)

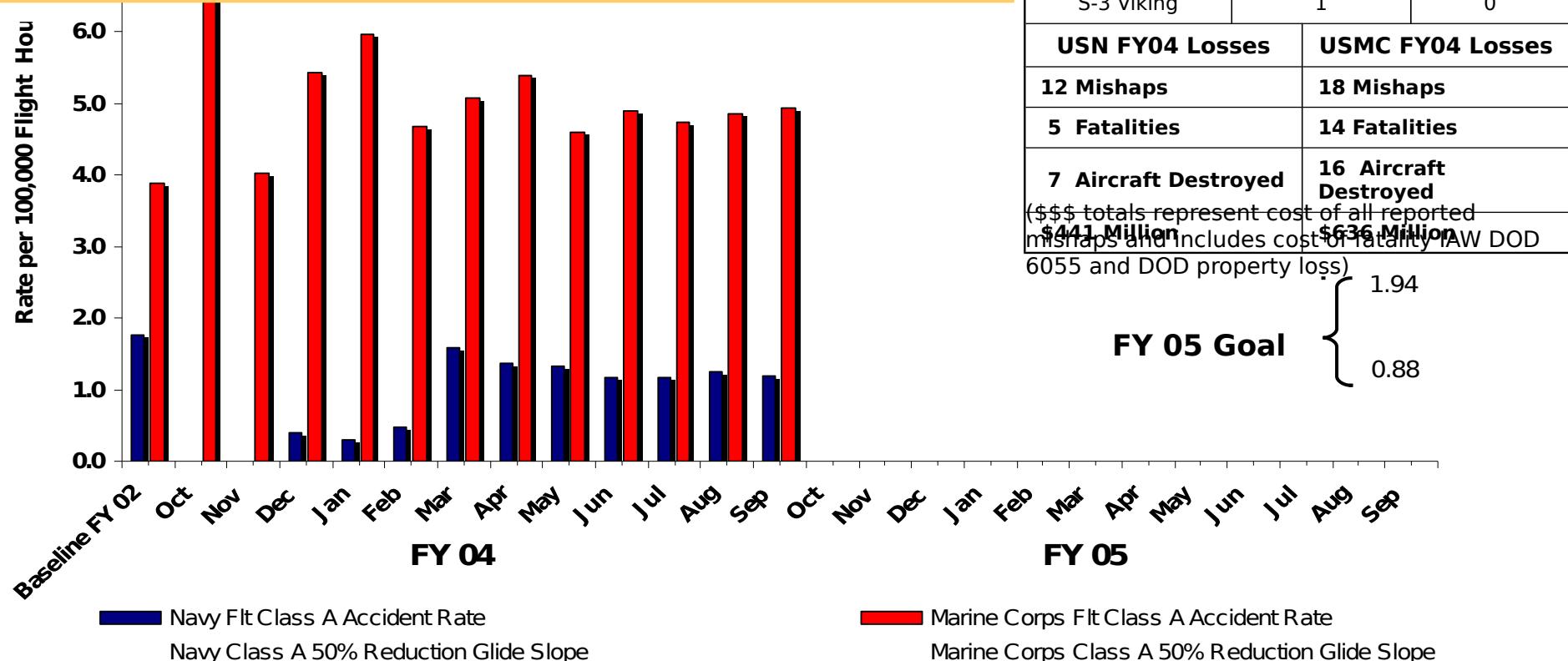




# Status Check (Class-A Flight Accidents)

## Leading Causal Factors

- **Human Error (89%)**
  - AircREW (breakdown in Crew Resource Management, poor decision making, failure to properly perform emergency procedures)
  - Supervisory (failure to provide adequate guidance and training)
- **Material/Systems Malfunction (11%)**
  - Material/component catastrophic failure (no human error involved)



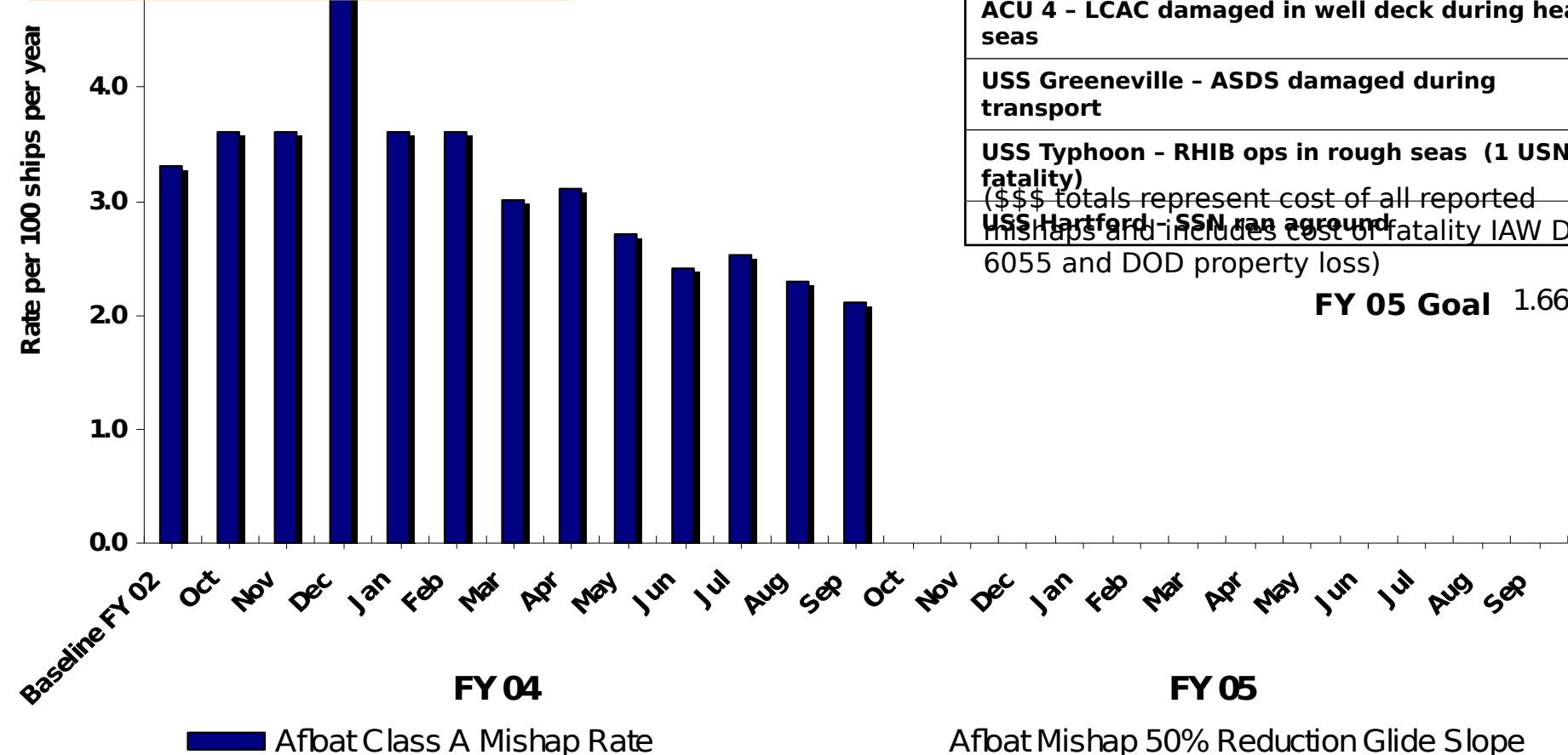


# Status Check (Afloat Class-A Mishaps)

1 year remains...

## Top 5 Causal Factors

- Inadequate Supervision
- PMS not accomplished
- Poor Crew Resource Management
- Lack of Situational Awareness
- Complacency



## USN FY04 Losses

7 Mishaps	\$20.86 Million
<b>USS John F Kennedy - collision with Dhow</b>	
<b>USS John F Kennedy - H2S leak (1 USN fatality)</b>	
<b>ACU 5 - M1A1 tank slid off LCAC (1 USMC fatality)</b>	
<b>ACU 4 - LCAC damaged in well deck during heavy seas</b>	
<b>USS Greeneville - ASDS damaged during transport</b>	
<b>USS Typhoon - RHIB ops in rough seas (1 USN fatality)</b>	
(\$\$\$\$ totals represent cost of all reported mishaps and includes cost of fatality IAW DOD 6055 and DOD property loss)	
<b>USS Hartford - SSN ran aground</b>	
6055 and DOD property loss)	

**FY 05 Goal** 1.66

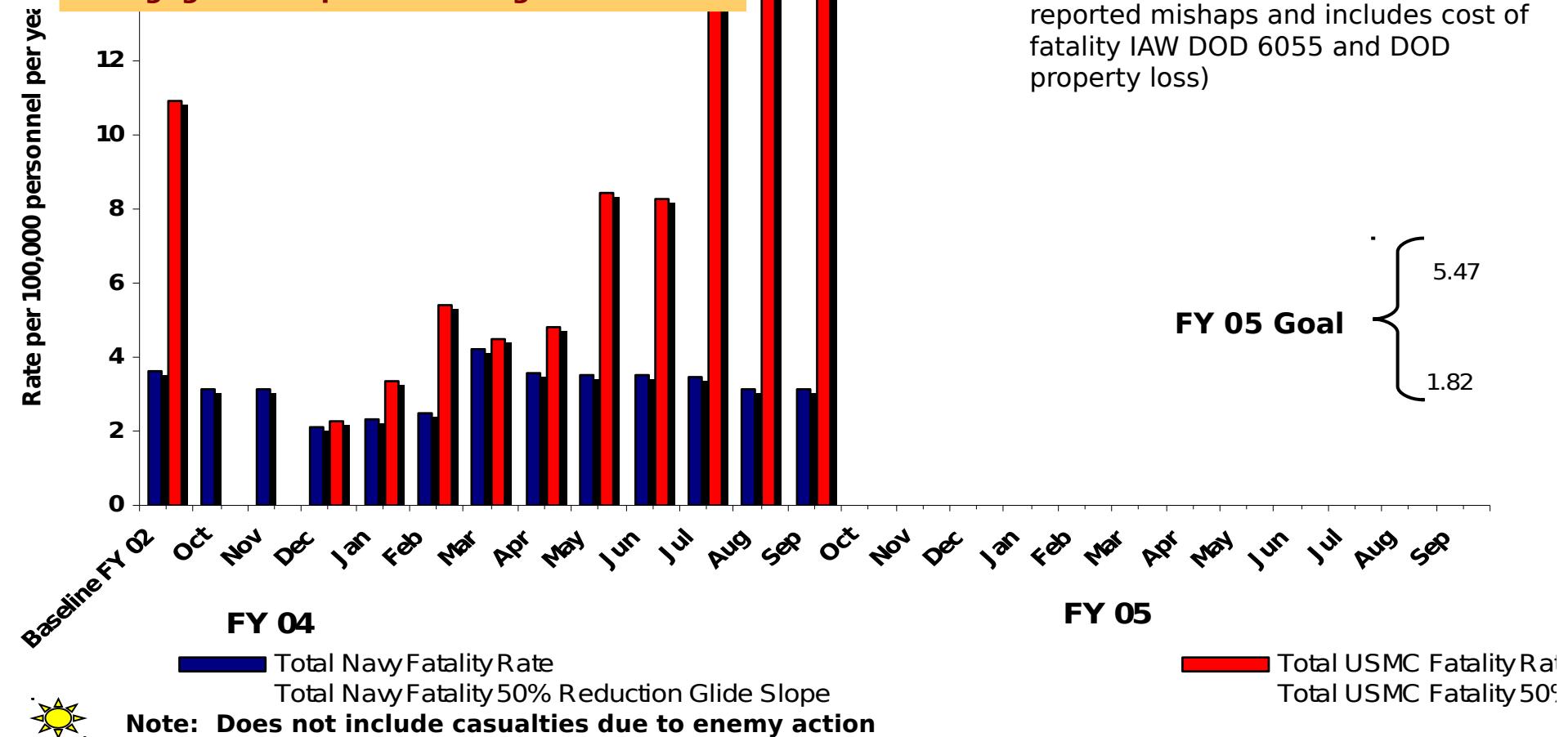


# Status Check (Operational Shore/Ground Fatalities)

## Leading Causes of Deaths

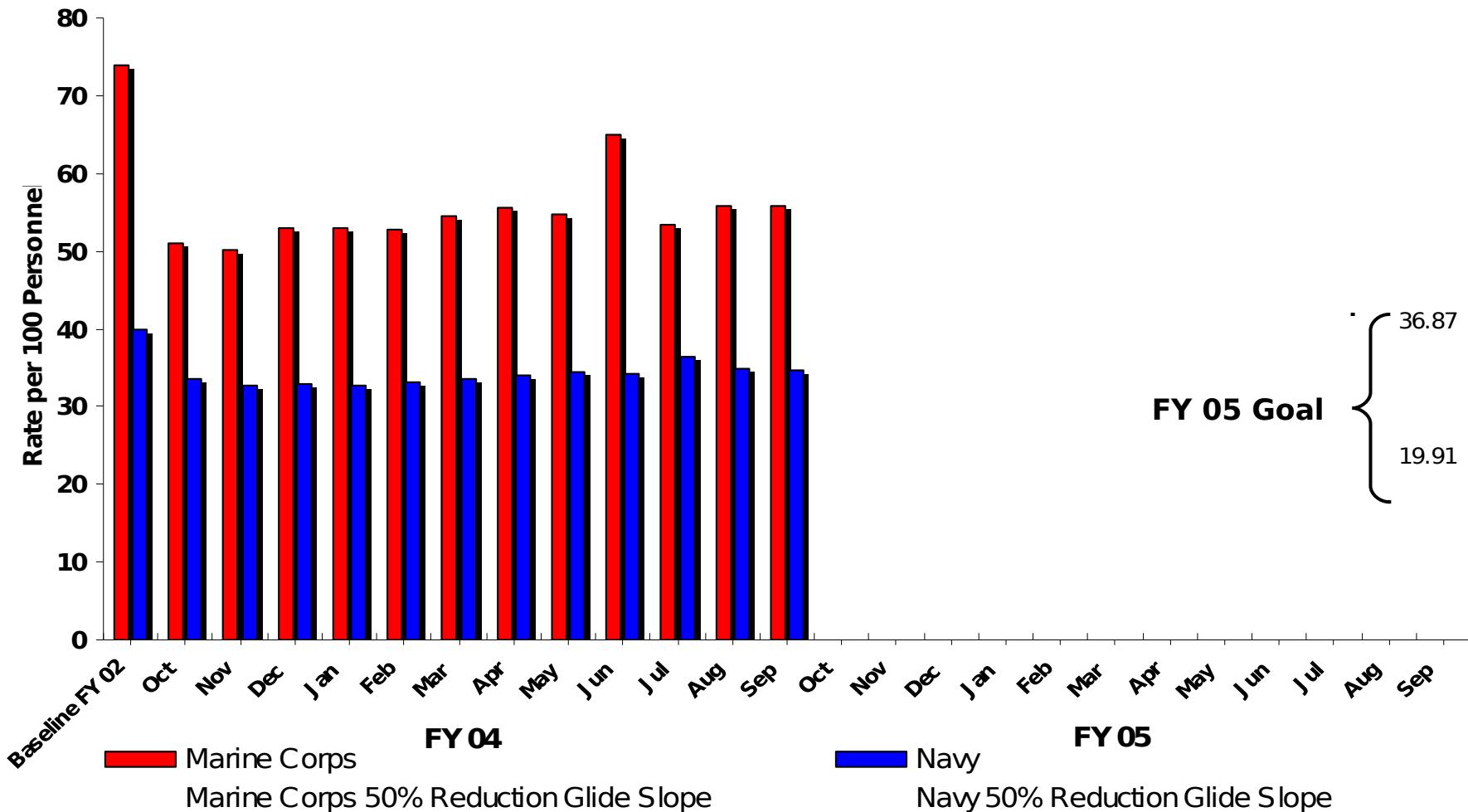
1 year remains...

- Tactical Vehicles
- GMV Mishaps
- Industrial Mishaps (electrocutions, burns, falls)
- PRT
- Negligent Weapons Discharge





# Status Check (Civilian Lost Day Rates) 1 year remains...





# Force Comparison (TYCOMs) - FY02-04

**Aviation**  
(per 100k flight hrs)

**Afloat**  
(per 100 ships)

**Ground/Shore**  
(per 100k personnel)

**Rec (Off-Duty)**  
(per 100k personnel)

**Traffic**  
(per 100k personnel)

	USN Class A's/Rate	AIRPAC Class A's/Rate	AIRLANT Class A's/Rate
	<b>59 / 1.74</b>	<b>21 / 2.10</b>	<b>24 / 2.80</b>
	<b>24 / 2.41</b>	<b>1 / 5.94</b>	<b>2 / 10.41</b>
	<b>38 / 3.31</b>	<b>0 / 0</b>	<b>1 / 0.77</b>
	<b>62 / 5.39</b>	<b>9 / 6.69</b>	<b>6 / 4.61</b>
	<b>212 / 18.44</b>	<b>31 / 23.03</b>	<b>22 / 16.90</b>



# Where More Attention Is Needed

***The Largest Challenge: Aviation - Traffic  
Protection!***



FISCAL YEAR	COST		DEATHS								
	OVERALL	AVIATION	OVERALL	PMV			RECREATION				
				Air	Afloat	Shore	Air	Afloat	Shore		
<b>FY99-03</b>	<b>\$ 3.8B</b>	<b>\$ 3.2B</b>	<b>1,045</b>	<b>585</b>	96	128	361	<b>141</b>	31	30	80
<b>FY02</b>	<b>\$683M</b>	<b>\$587M</b>	<b>238</b>	<b>140</b>	30	32	78	<b>32</b>	9	5	18
<b>FY03</b>	<b>\$1.024M</b>	<b>\$956M</b>	<b>232</b>	<b>119</b>	17	31	71	<b>32</b>	9	6	17
<b>FY04</b>	<b>\$1.143B</b>	<b>\$1.077B</b>	<b>210</b>	<b>117</b>	16	20	81	<b>32</b>	4	9	19

(\$\$\$ totals represent cost of all reported mishaps and includes cost of fatality IAW DOD 6055 and DOD property loss)



# Secretary Rumsfeld's Challenge

THE SECRETARY OF DEFENSE  
1000 DEFENSE PENTAGON  
WASHINGTON, DC 20301-1000

May 19, 2003

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS  
CHAIRMAN OF THE JOINT CHIEFS OF STAFF  
UNDER SECRETARIES OF DEFENSE  
DIRECTOR, DEFENSE RESEARCH AND ENGINEERING  
ASSISTANT SECRETARIES OF DEFENSE  
GENERAL COUNSEL OF THE DEPARTMENT OF DEFENSE  
INSPECTOR GENERAL OF THE DEPARTMENT OF DEFENSE  
DIRECTOR, OPERATIONAL TEST AND EVALUATION  
ASSISTANTS TO THE SECRETARY OF DEFENSE  
DIRECTOR, ADMINISTRATION AND MANAGEMENT  
DIRECTOR, FORCE TRANSFORMATION  
DIRECTOR, NET ASSESSMENT  
DIRECTOR, PROGRAM ANALYSIS AND EVALUATION  
DIRECTORS OF THE DEFENSE AGENCIES  
DIRECTORS OF THE DOD FIELD ACTIVITIES

SUBJECT: Reducing Preventable Accidents

World-class organizations do not tolerate preventable accidents. Our accident rates have increased recently, and we need to turn this situation around. I challenge all of you to reduce the number of mishaps and accident rates by at least 50% in the next two years. ~~These goals are achievable, and will directly increase our operational readiness. We owe no less to the men and women who defend our Nation.~~

I have asked the Under Secretary of Defense for Personnel and Readiness to lead a department-wide effort to focus our accident reduction effort. I intend to be updated on our progress routinely. The USD(P&R) will provide detailed instructions in separate correspondence.

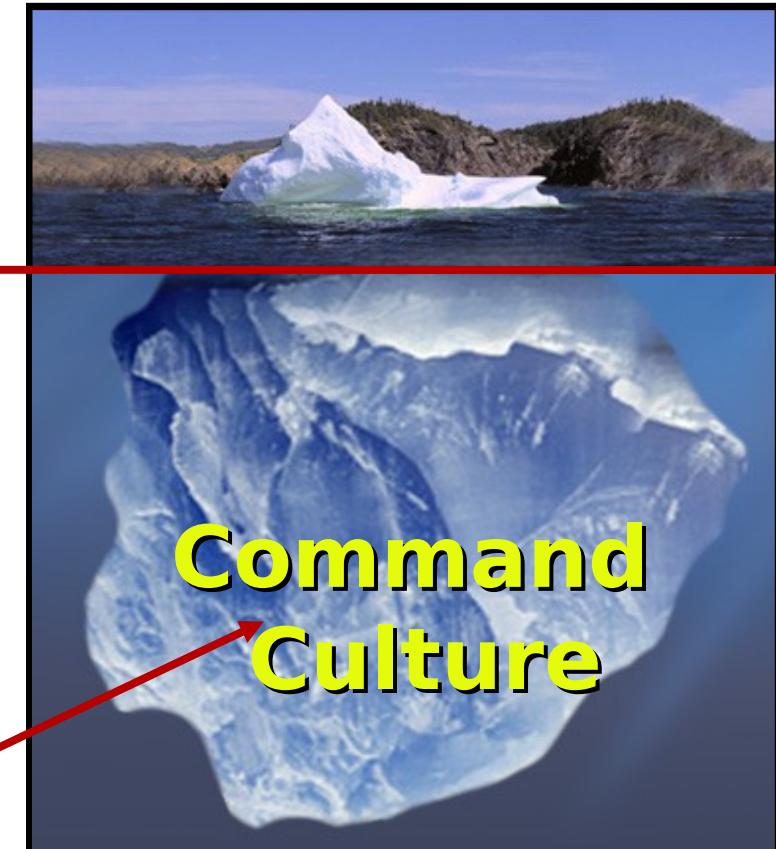
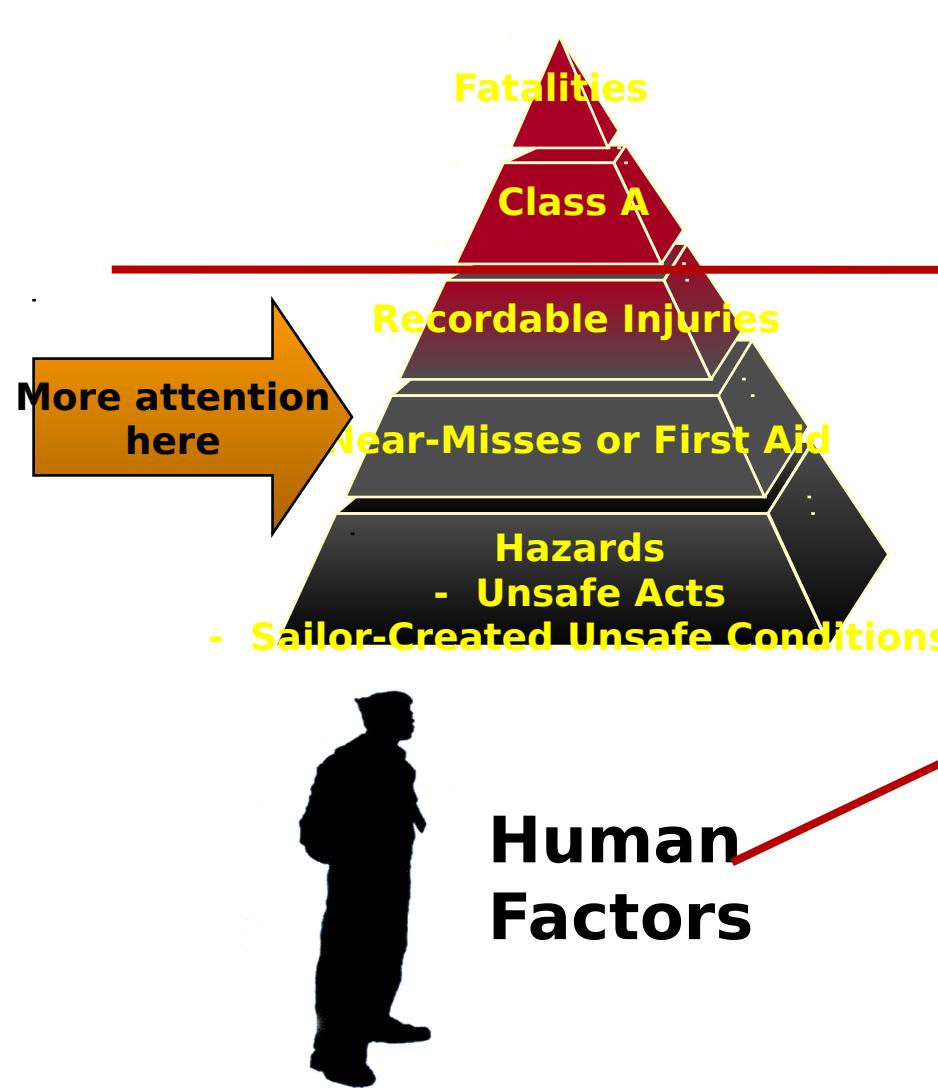
  
  
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***“World-class organizations do not tolerate preventable accidents. Our accident rates have increased recently, and we need to turn this situation around. I challenge all of you to reduce the number of mishaps and accident rates by at least 50% in the next two years.”***

Memorandum from Secretary of Defense  
19 May 2003



# A Safety Culture





# How To Get There – What is LEADERSHIP “**Actionable**”

1. Ensure you have a consistent “Safety Structure”
2. Mentor – On and Off duty

- 2<sup>nd</sup> MAW Mentoring Program / Revise leave chits to a “contract”
  - What are your Sailors/Marines doing after hours?
  - The “leadership hungry” PO3
- Look for the signs “Below the Waterline!”

3. ORM RM

- Take it ~~off~~  duty

4. Awareness – Can we improve if Sailors don’t know about Mishap Reduction Campaign???
5. Accountability – A Command with no PMV program?
6. Reporting – Hazreps? Class B, C, ....

**A Class “A” is a Class “A” is a Class “A”.....**

- ***Does a Parent “care” how their Son or Daughter died?***



# Are We Serious About Safety?

## THE BUILDING BLOCKS OF SAFETY



## DESIRED END STATE

*Every Sailor possesses an ever-present and intuitive safety awareness that he or she carries at all times - at sea, on deployment, at work, at home, on liberty, and leave.*



# Is It Possible?

- “Platform” Type Mishaps - YES!
- “Off-Duty” Mishaps - HARD.
  - ***Can be done - but CHANGE a MUST!***
- ***Human Error - The “KEYS” of the realm***



# QUESTIONS

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